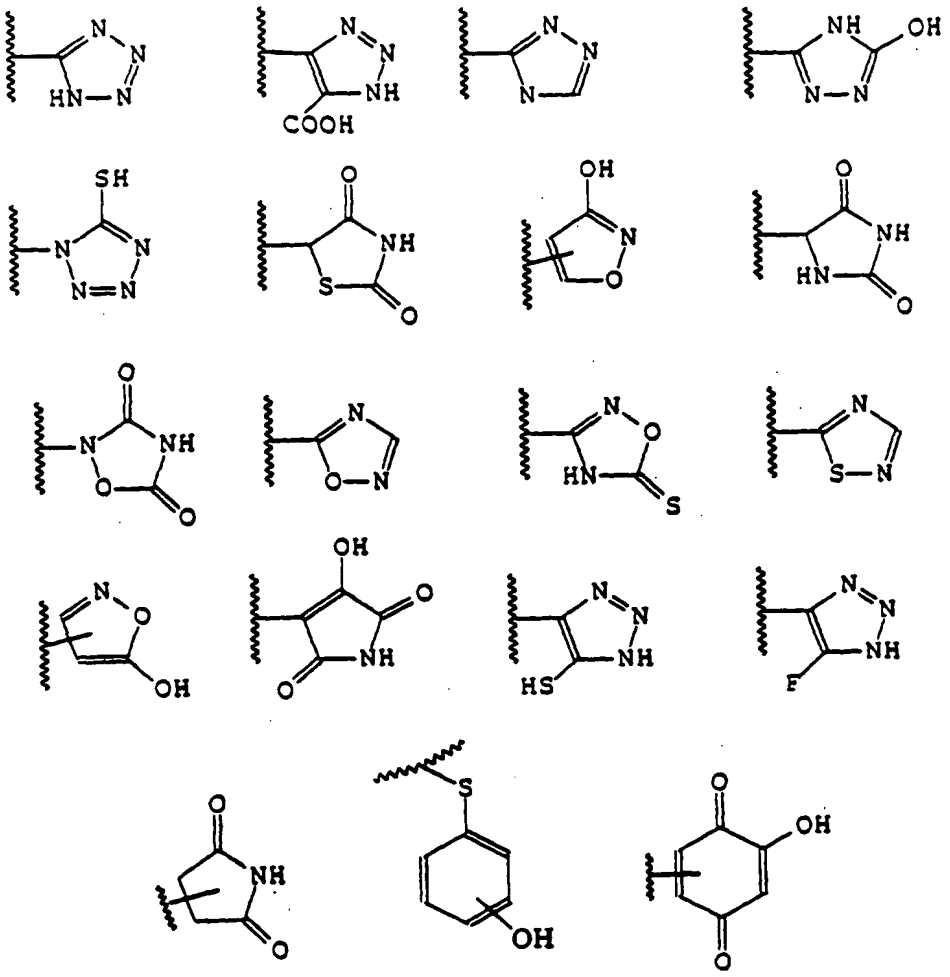
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for improving naturally-occurring vision in an animal, in the absence of any opthalmologic disorder, disease, or injury or treating a nerve-related vision disorder ~~or treating memory impairment~~ in a mammal in need thereof, which comprises administering to said mammal an effective amount of an N-heterocyclic ring compound containing a carboxylic acid or carboxylic acid isostere moiety thereof attached to the 2-carbon of the N-heterocyclic ring, wherein the carboxylic acid isostere is selected from the group consisting of:



wherein the nerve-related vision disorder is selected from the group consisting of the following:

visual impairments;

orbital disorders;

disorders of the lacrimal apparatus;

disorders of the eyelids;

disorders of the conjunctiva;

disorders of the cornea;

cataract;

disorders of the uveal tract;

disorders of the retina;

disorders of the optic nerve or visual pathways;

free radical induced eye disorders and diseases;

immunologically-mediated eye disorders and diseases;

nerve-related physical injury affecting vision; and

nerve-related symptoms and complications of eye disease, nerve-related symptoms and complications of eye disorders, and nerve-related symptoms and complications of physical injury affecting vision.

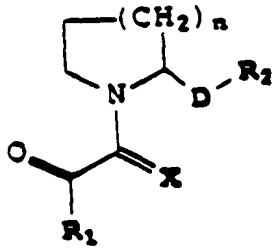
2. (Previously presented) The method of claim 1, wherein the compound is immunosuppressive.

3. (Previously presented) The method of claim 1, wherein the compound has an affinity for an FKBP-type immunophilin.

4. (Original) The method of claim 3, wherein the FKBP-type immunophilin is FKBP-12.

5. – 6. (Cancelled)

7. (Previously presented) The method of claim 1, wherein the compound is of formula (I):



I

or a pharmaceutically acceptable salt, ester, or solvate thereof, where

n is 1-3;

X is either O or S;

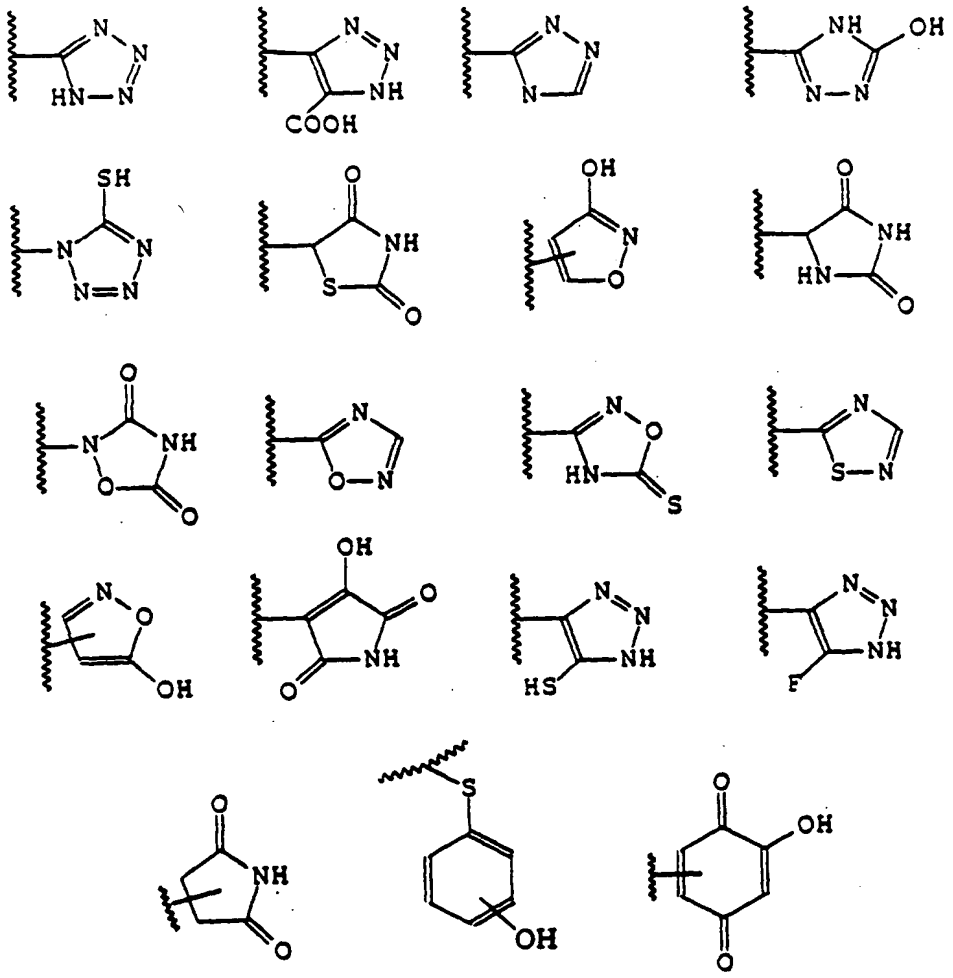
R_1 is selected from the group consisting of C_1-C_9 straight or branched chain alkyl; C_2-C_9 straight or branched chain alkenyl, aryl, heteroaryl, carbocycle, or heterocycle;

D is a bond, or a C_1-C_{10} straight or branched chain alkyl, C_2-C_{10} alkenyl or C_2-C_{10} alkynyl; and

R_2 is a carboxylic acid or a carboxylic acid isostere.

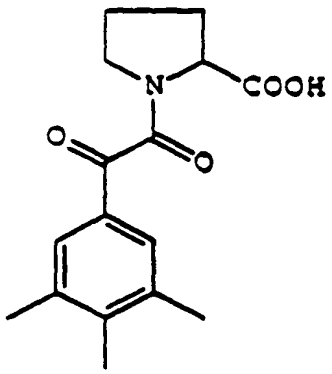
8. (Original) The method of claim 7, wherein R_2 is a carbocycle or hetetocycle containing any combination of CH_2, O, S, or N in any chemically stable oxidation state, where any of the atoms of said ring structure are optionally substituted in one or more positions with R_3, wherein R_3 is hydrogen, hydroxy, halo, haloalkyl, thiocarbonyl, alkoxy, alkenoxy, alkylaryloxy, aryloxy, arylalkyloxy, cyano, nitro, imino, alkylamino, aminoalkyl, suithydryl, thioalkyl, alkylthio, sulfonyl, C_1-C_6 straight or branched chain alkyl, C_2-C_6 straight or branched chain alkenyl or alkynyl, aryl, heteroaryl, carbocycle, heterocycle, and CO_2R^4 where R^4 is hydrogen or C_1-C_9 straight or branched chain alkyl or alkenyl.

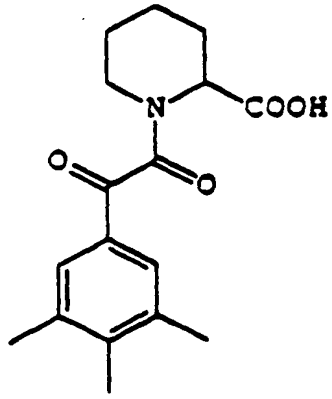
9. (Original) The method of claim 7, wherein R_2 is selected from the group below:

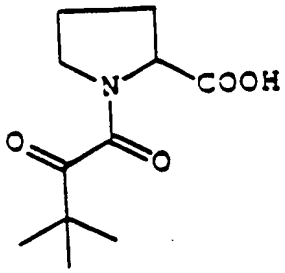


10. (Original) The method of claim 7, wherein R_2 is selected from the group consisting of -COOH, $-SO_3H$, $-SO_2HNR^3$, $-PO_2(R^3)_2$, -CN, $-PO_3(R^3)_2$, $-OR^3$, $-SR^3$, $-NHCOR^3$, $-N(R^3)_2$, $-CON(R^3)_2$, $-CONH(O)R^3$, $-CONHNHSO_2R^3$, $-COHNSO_2R^3$, and $-CONR^3CN$.

11. (Previously presented) The method of claim 7, wherein the compound is selected from the group consisting of:



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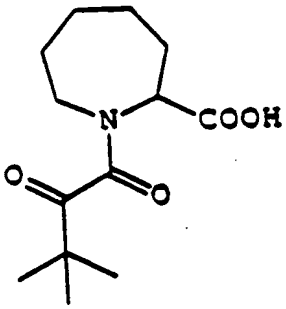
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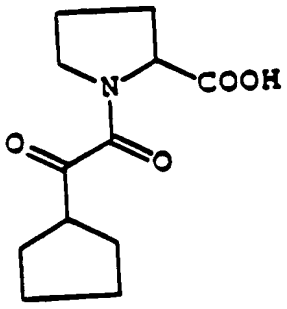
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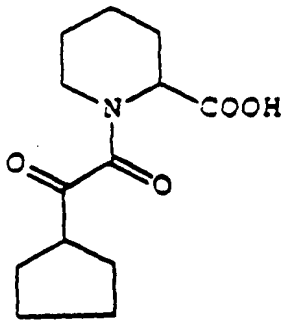
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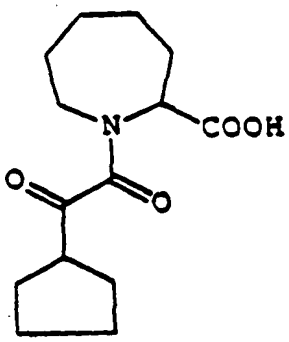
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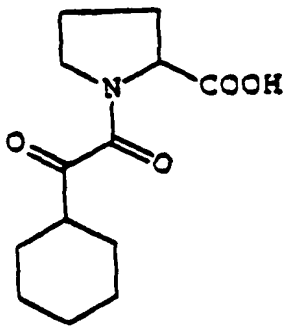
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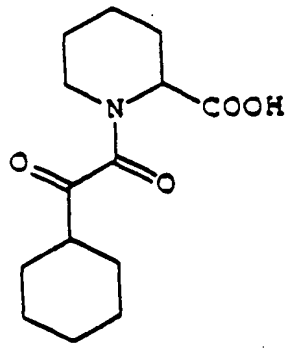
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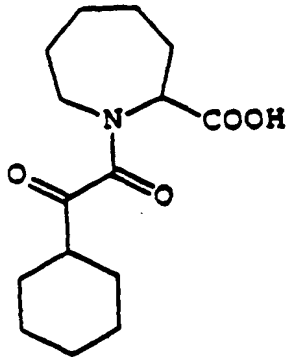
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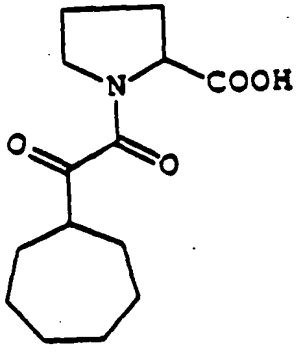
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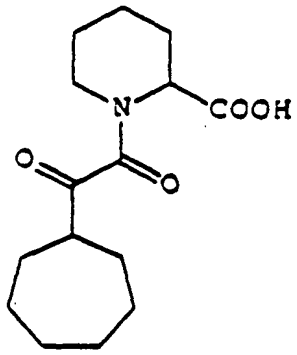
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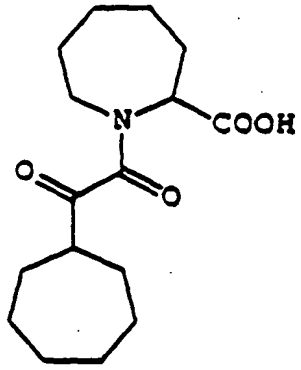
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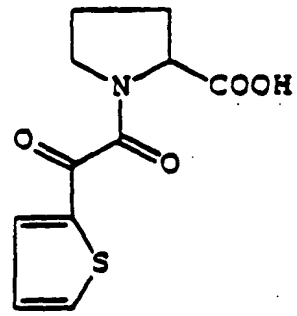
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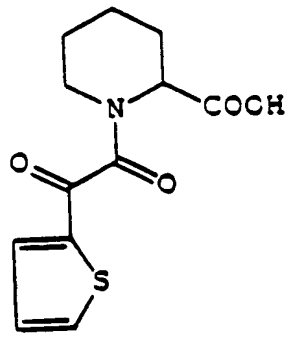
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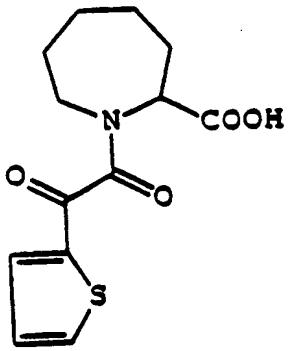
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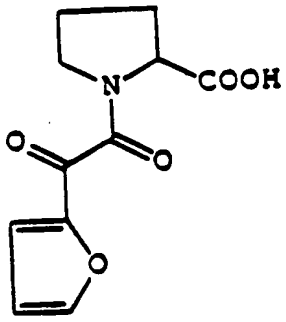
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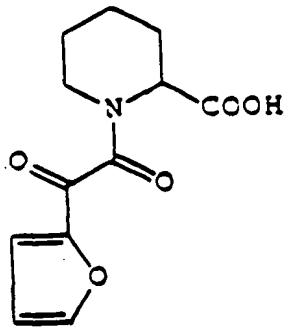
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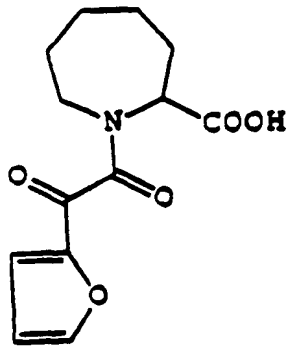
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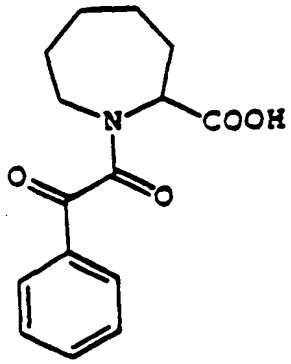
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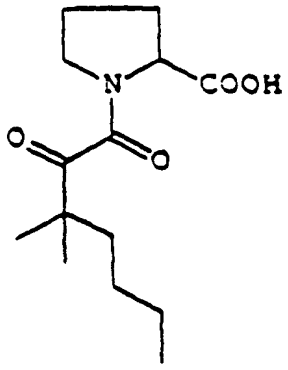
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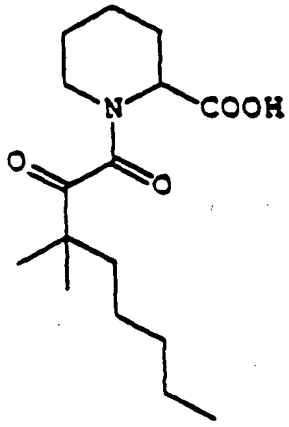
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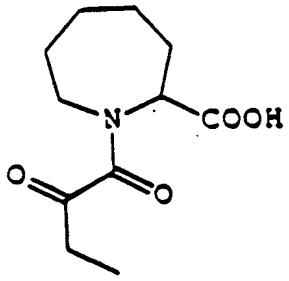
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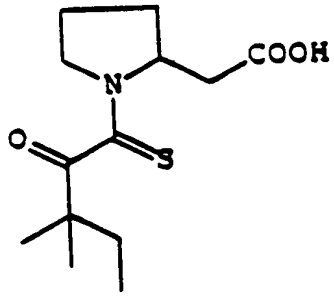
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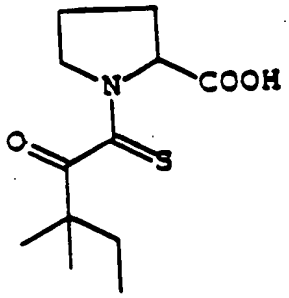
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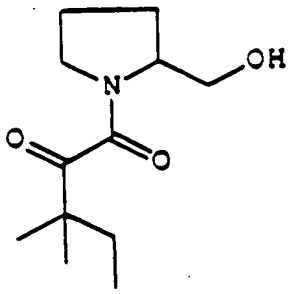
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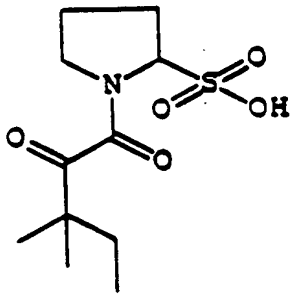
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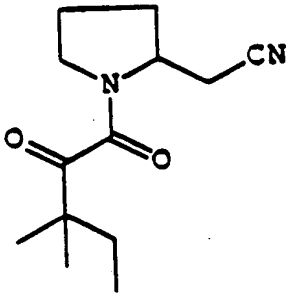
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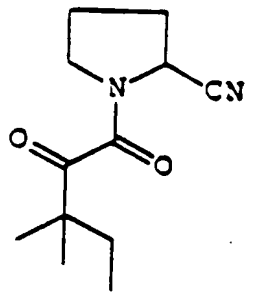
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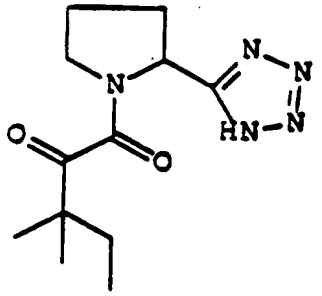
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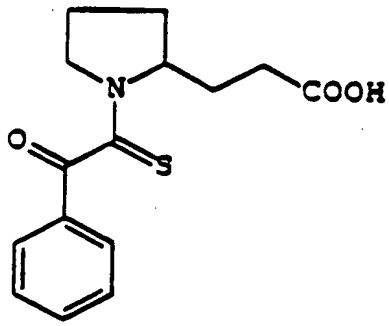
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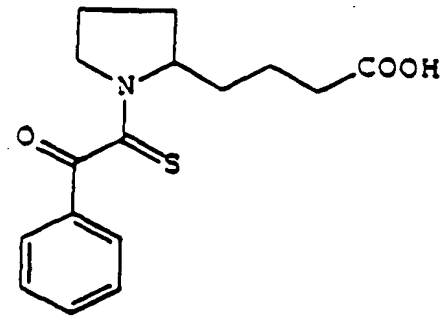
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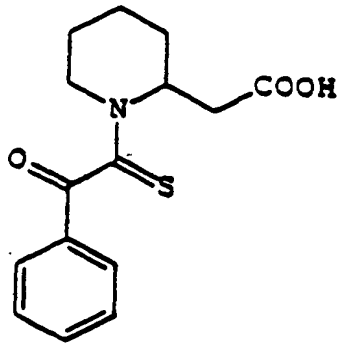
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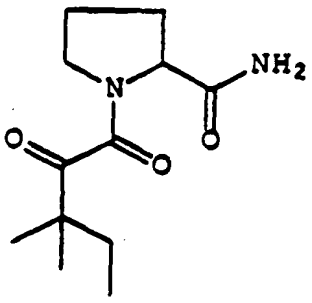
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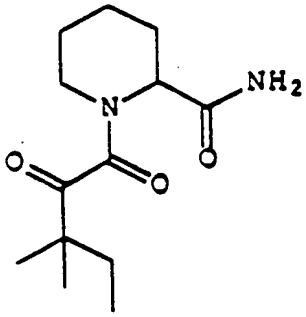
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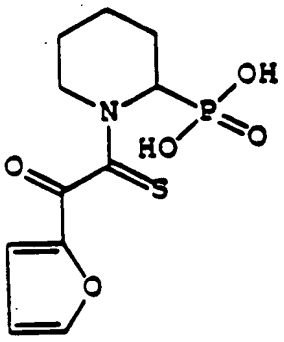
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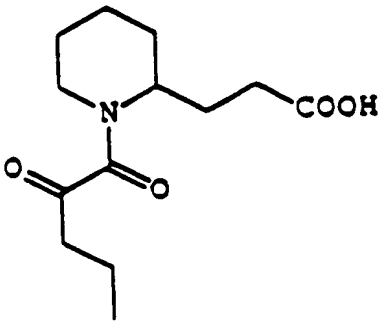
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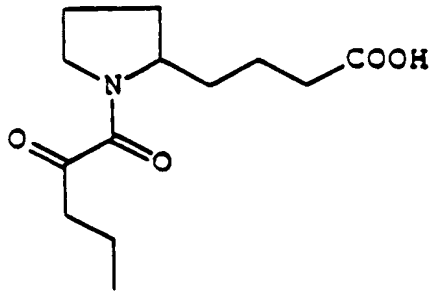
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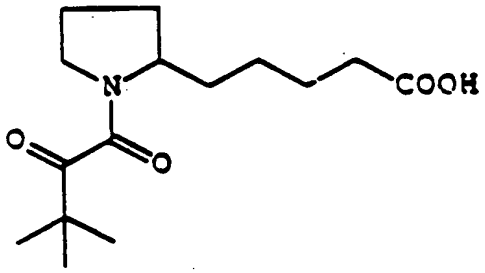
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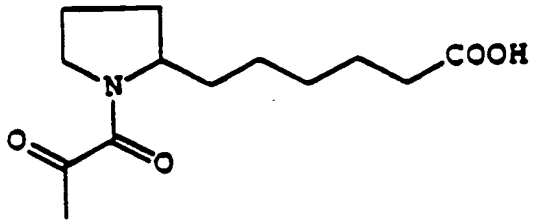
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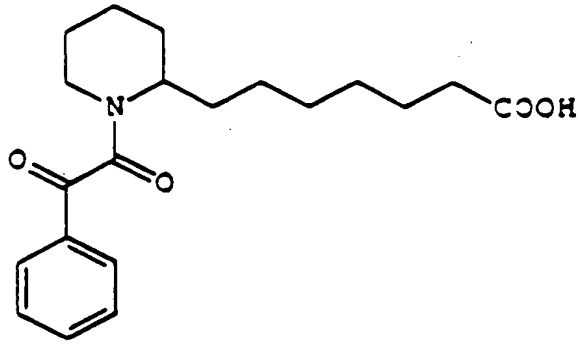
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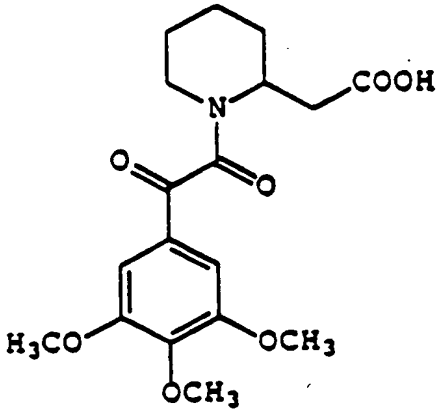
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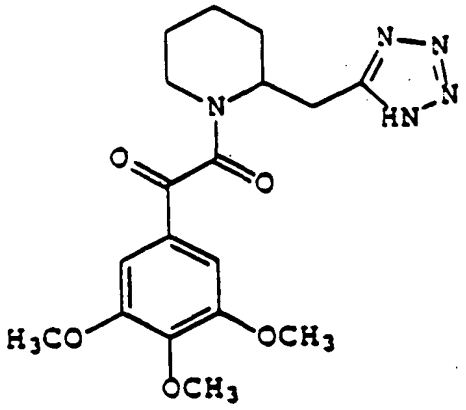
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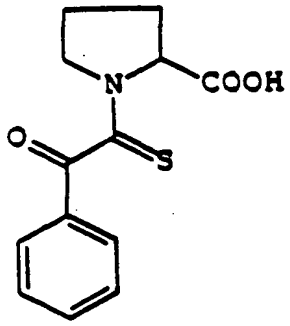
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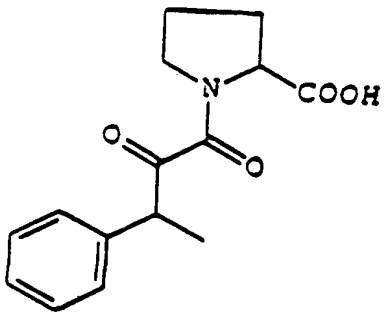
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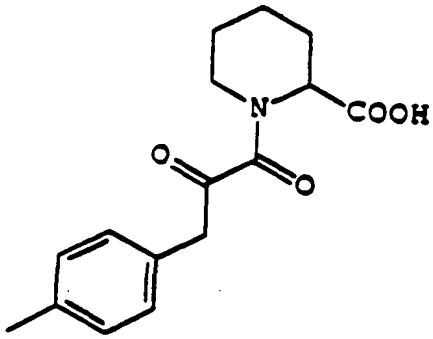
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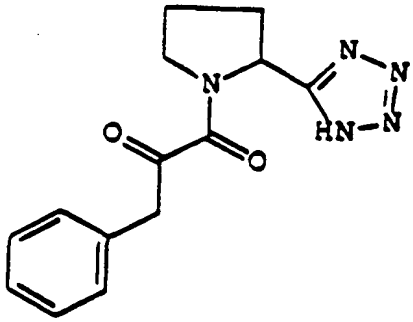
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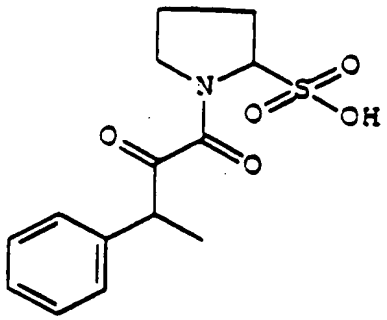

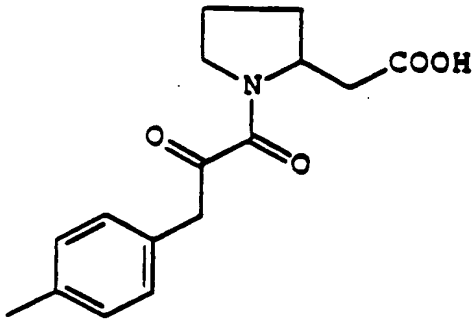

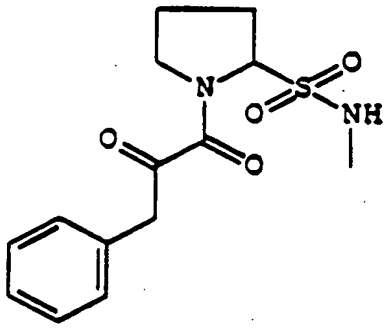

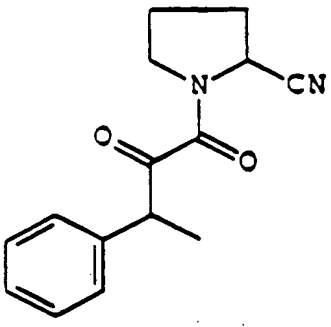
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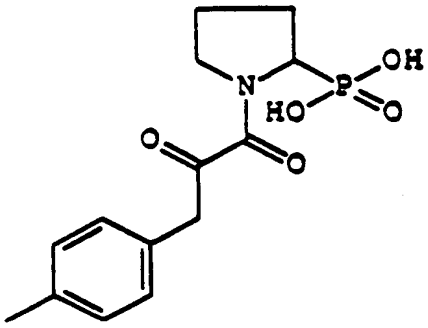
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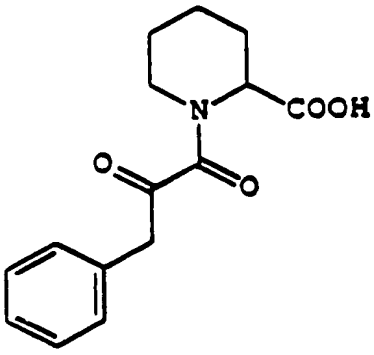
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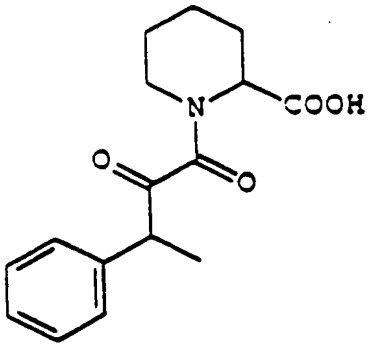
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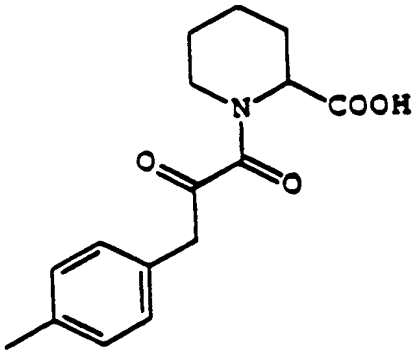
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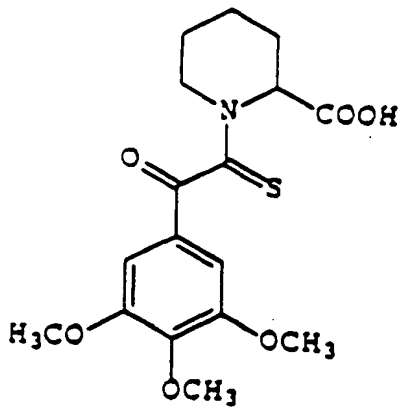
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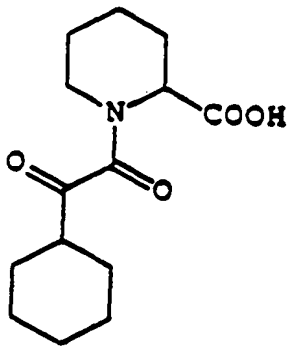
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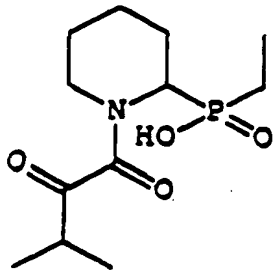
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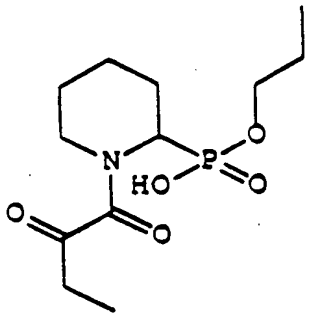

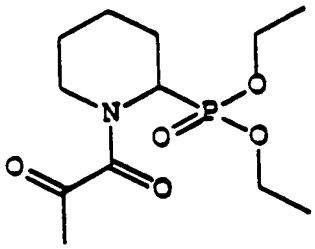

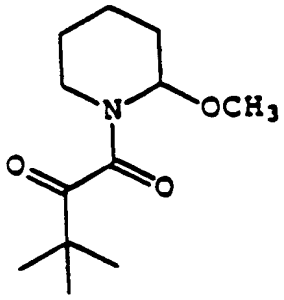

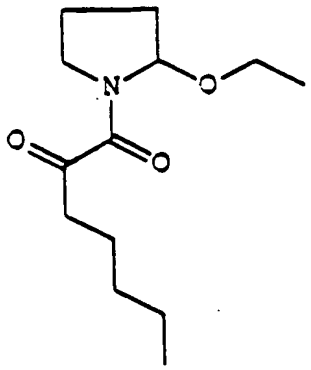

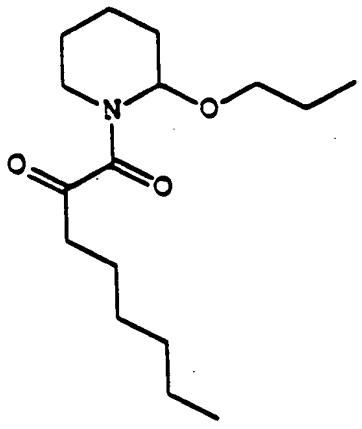

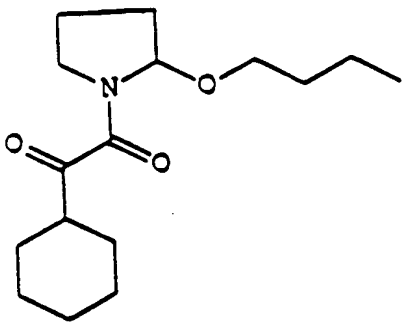

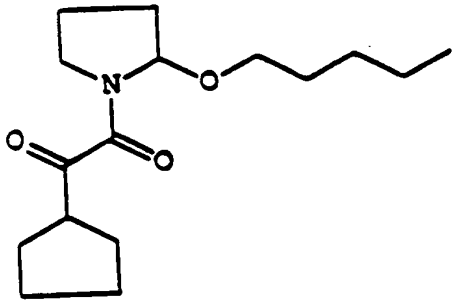

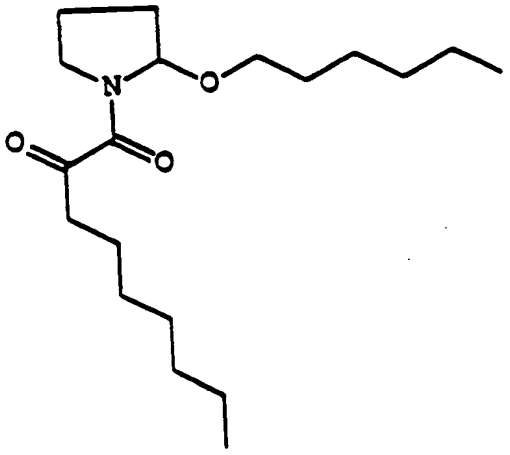

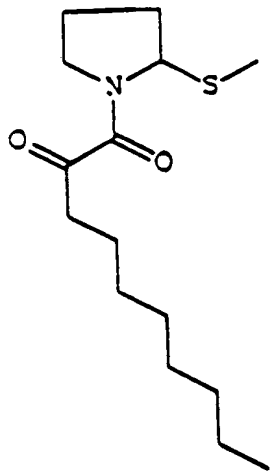

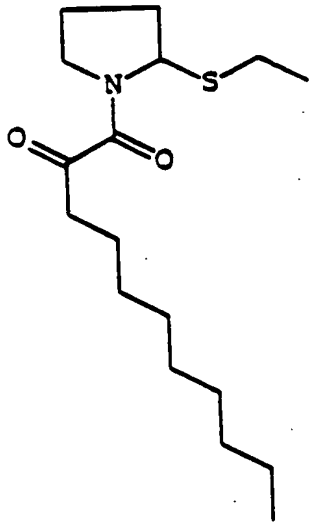

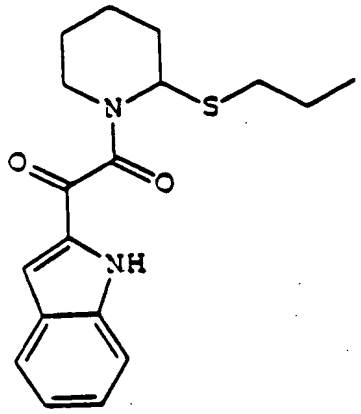
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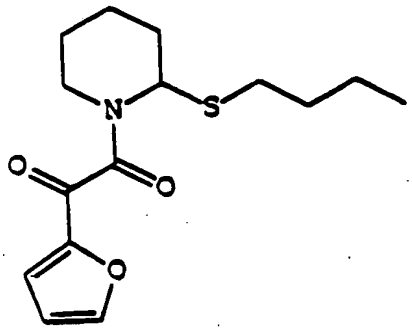
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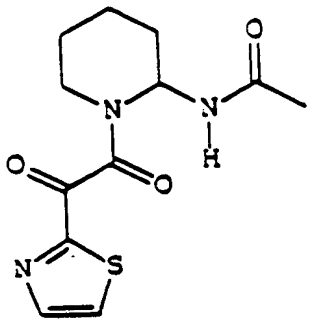

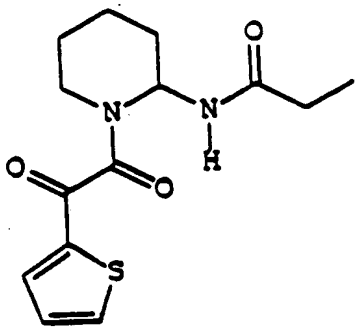

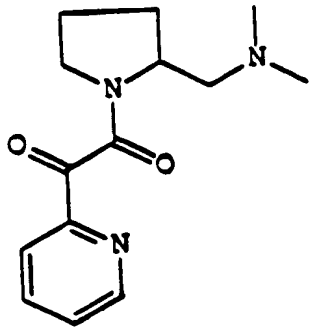

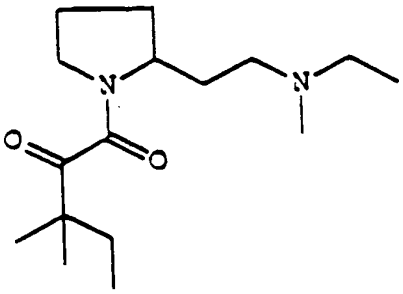

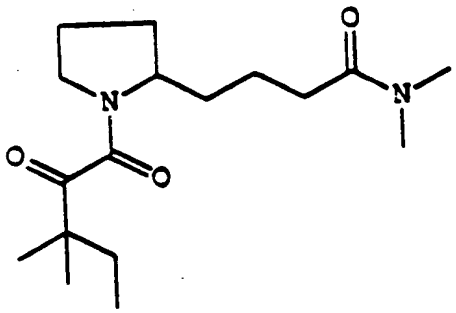

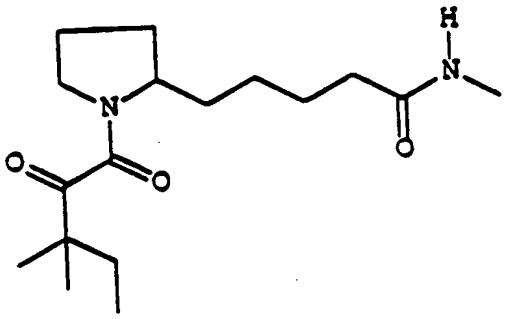

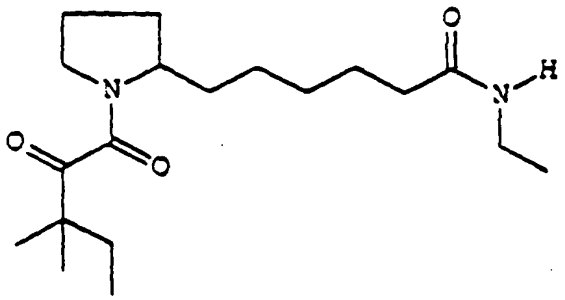

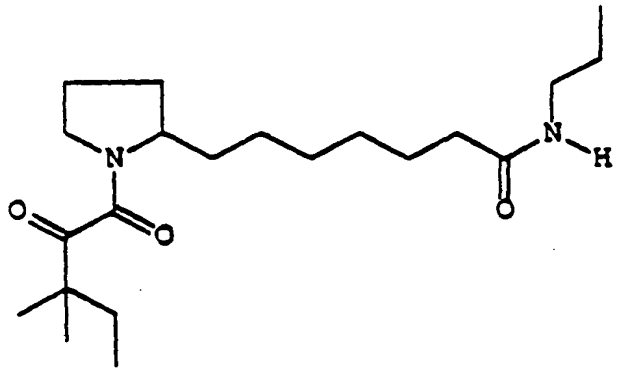

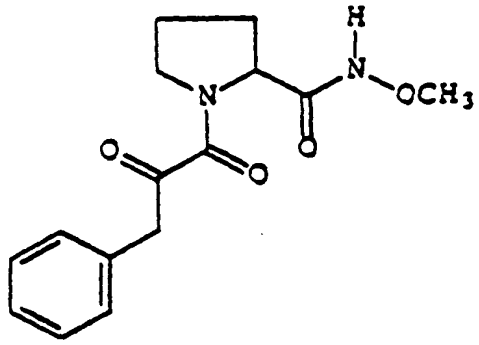

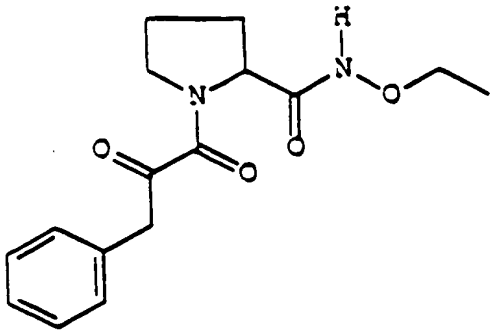

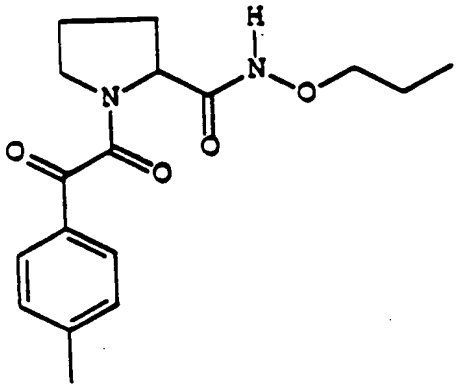

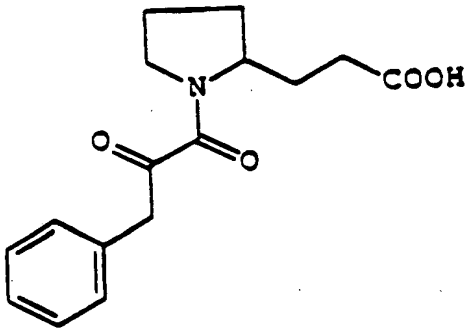
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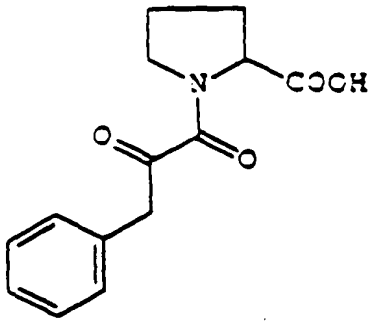
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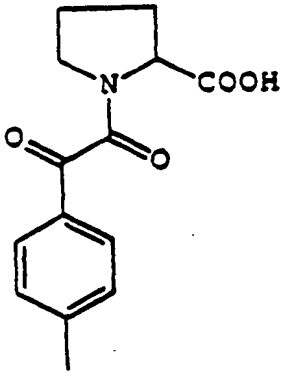
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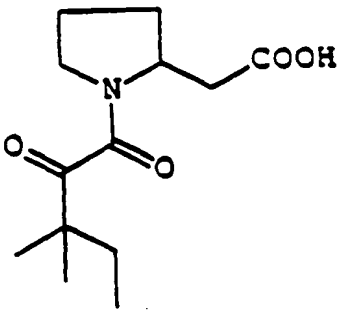
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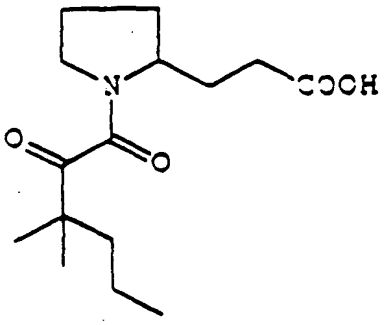
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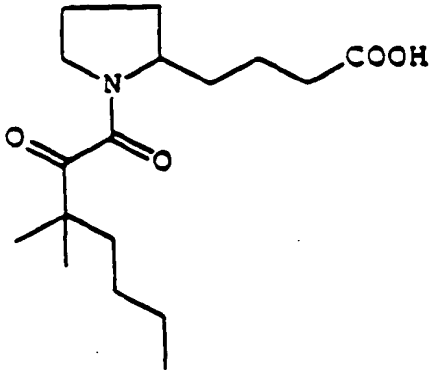
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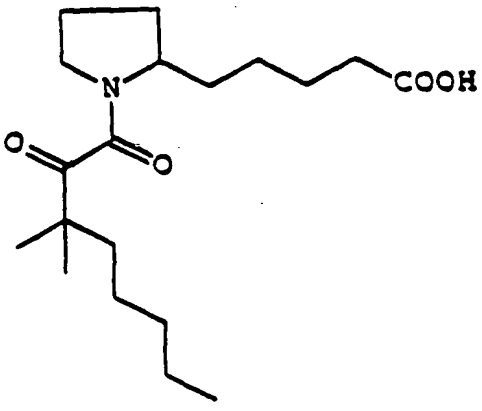
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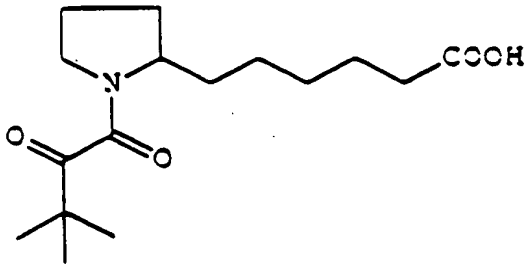
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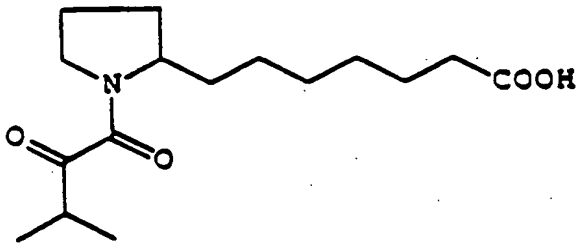
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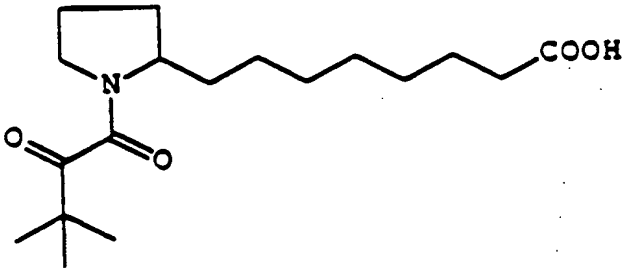
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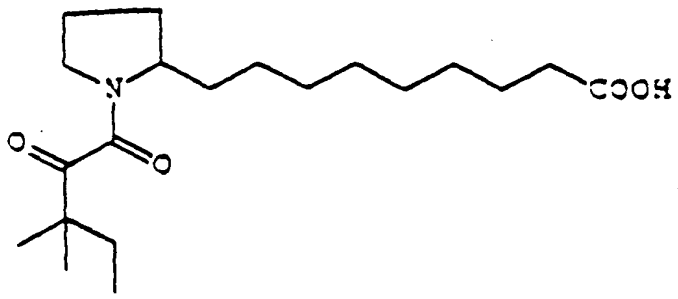
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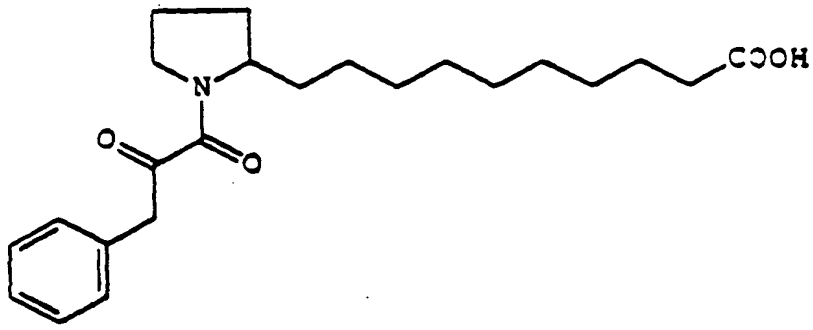
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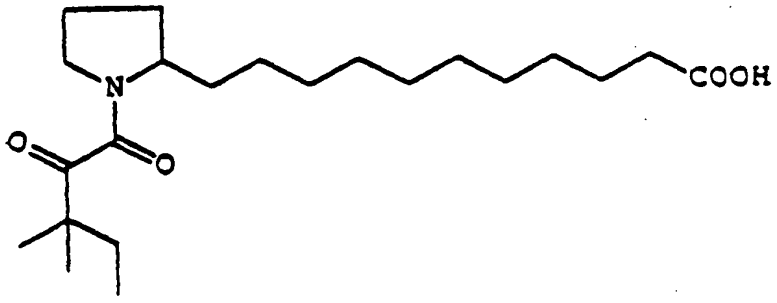
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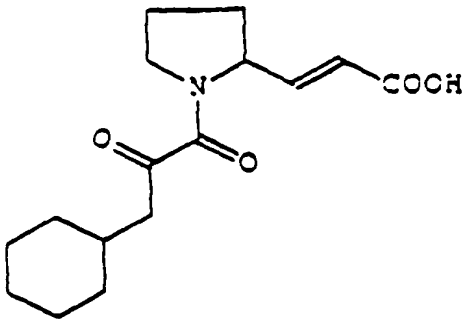
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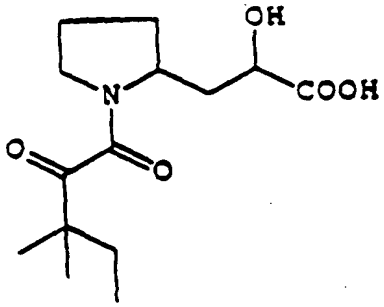
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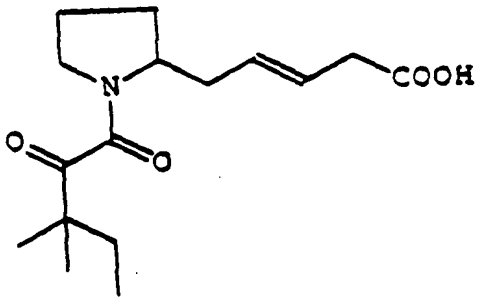
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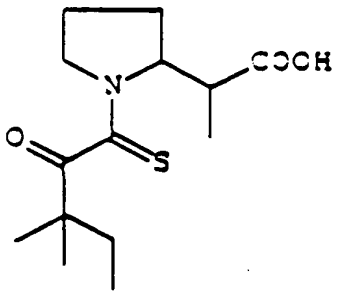
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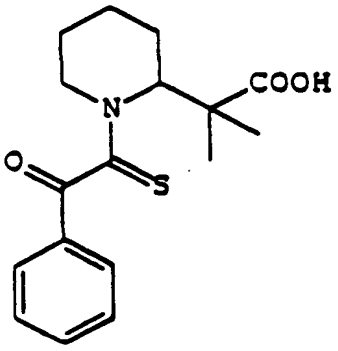
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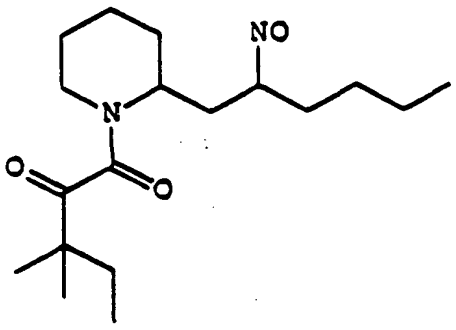
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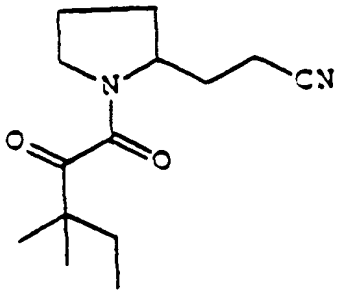

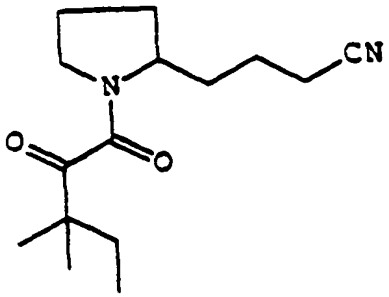

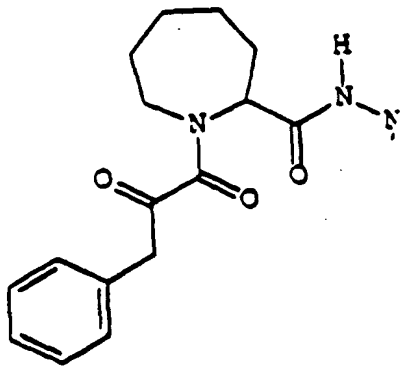

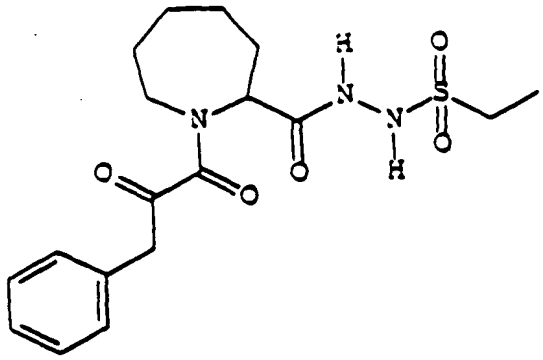

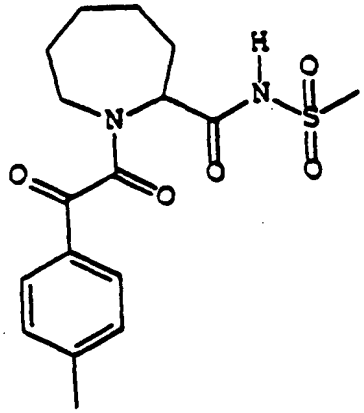

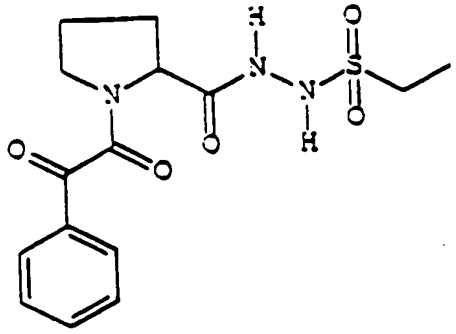

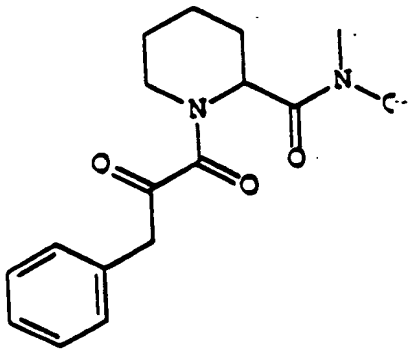

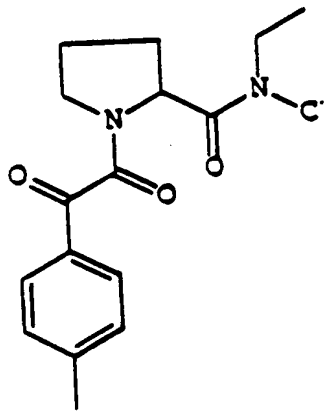

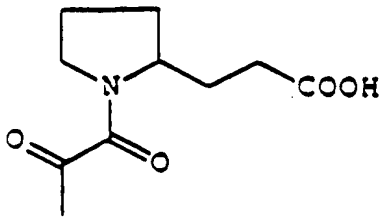
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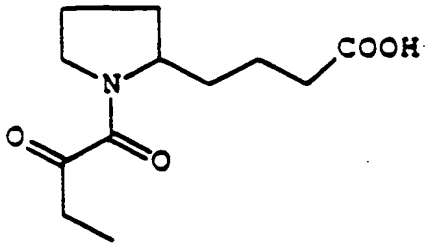
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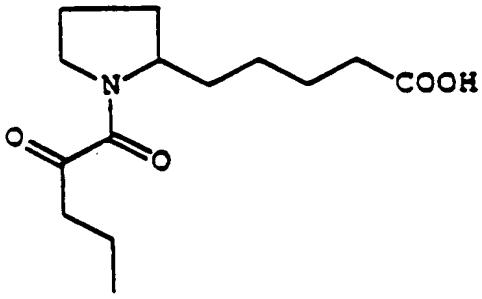
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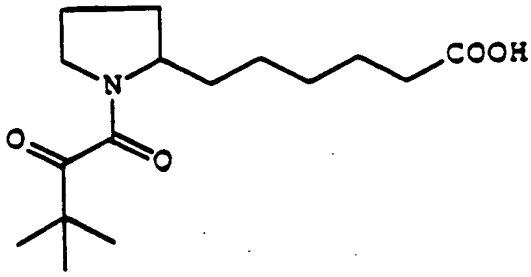
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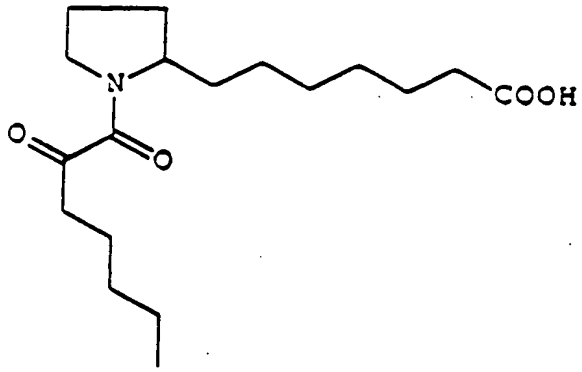
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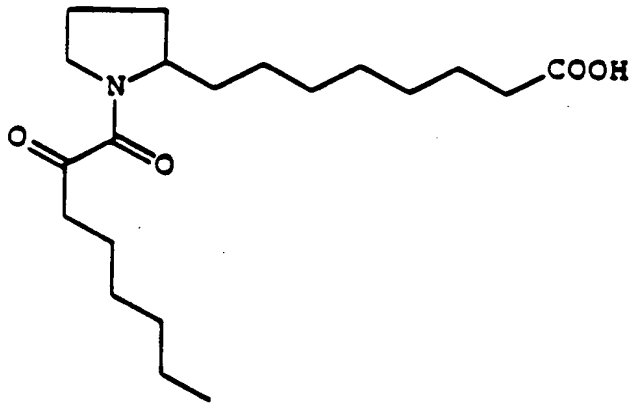
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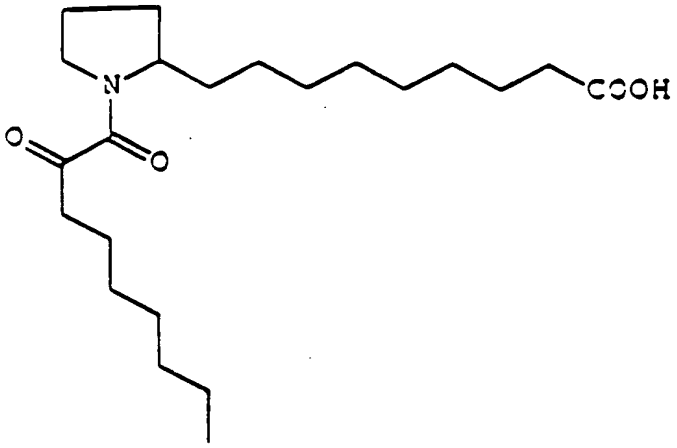
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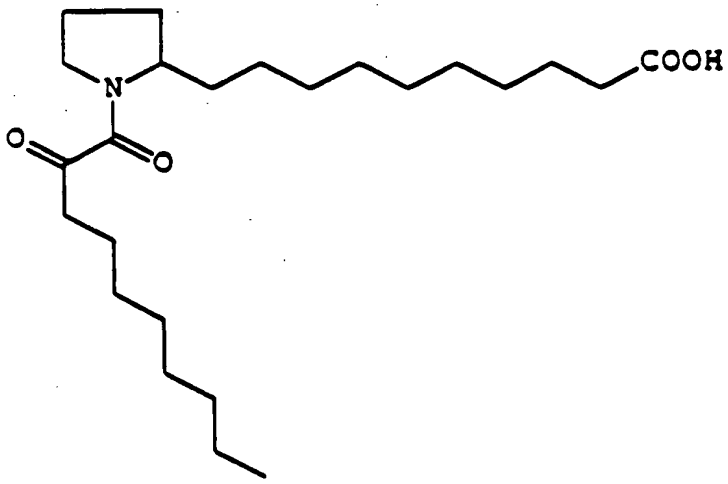
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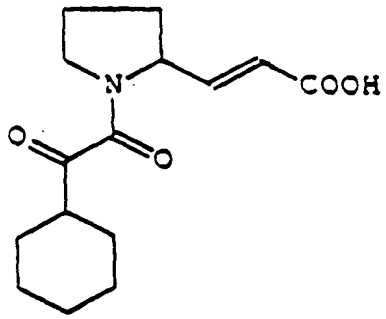
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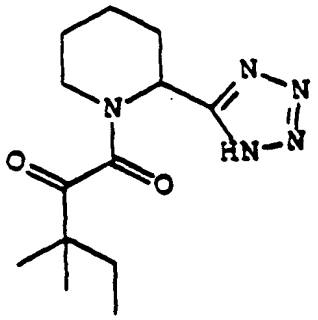
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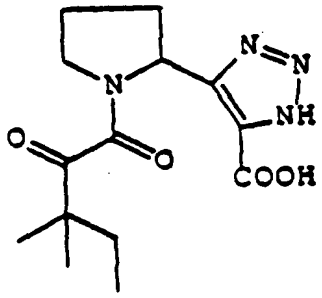
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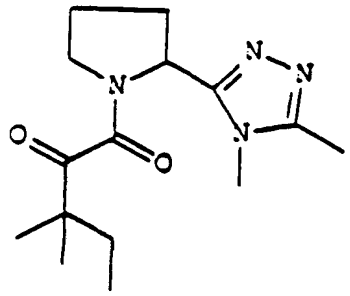

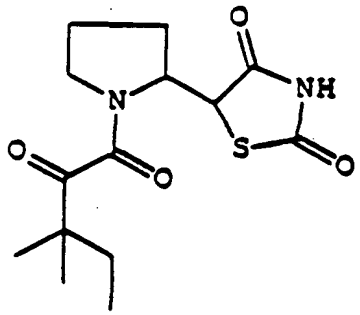

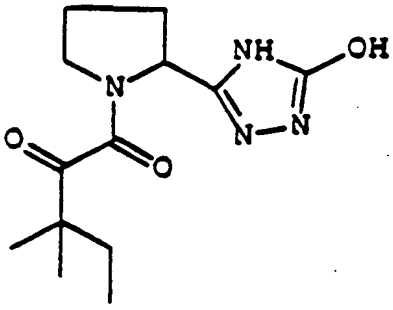

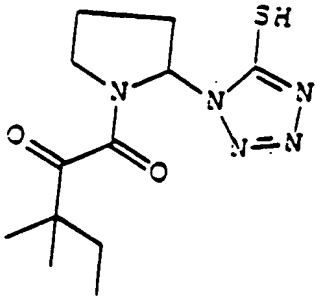

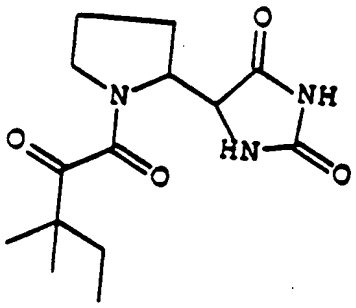

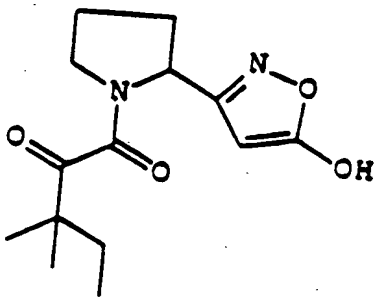

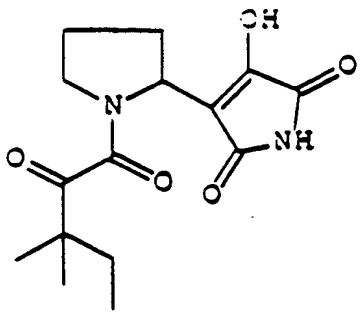

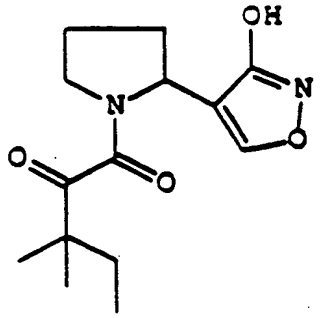

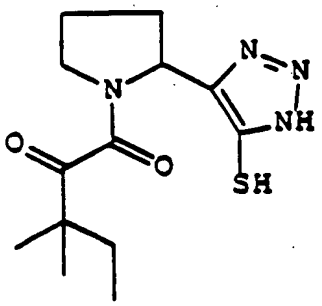

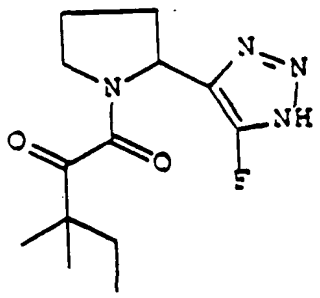

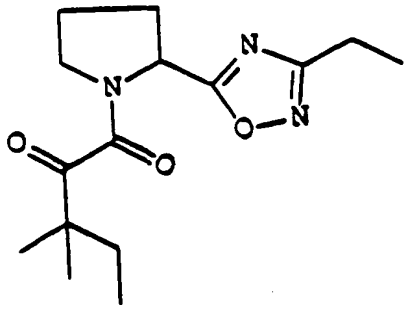

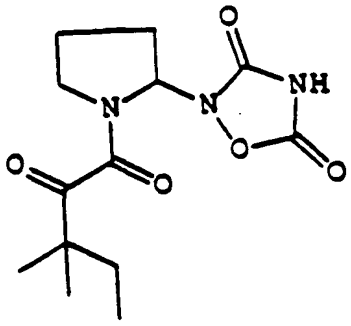

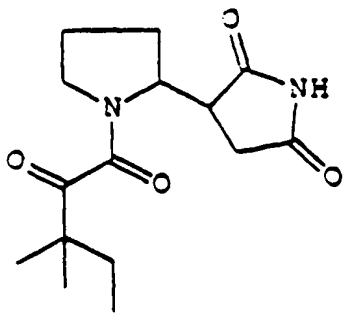

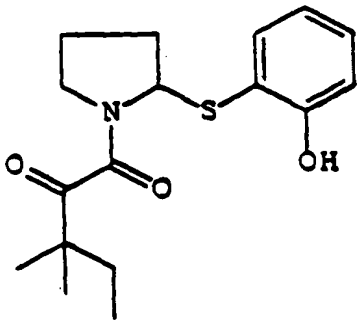

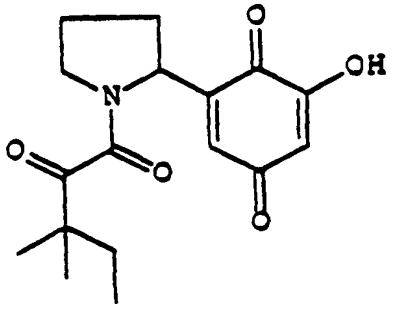

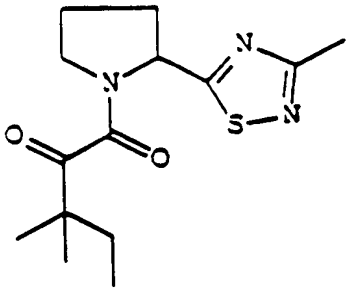

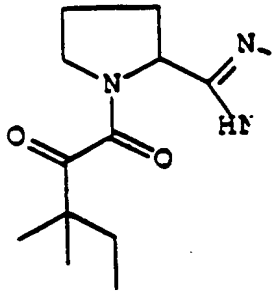

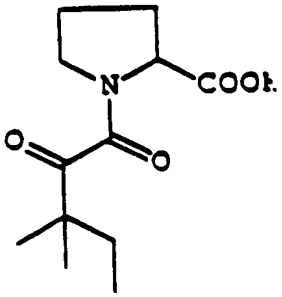

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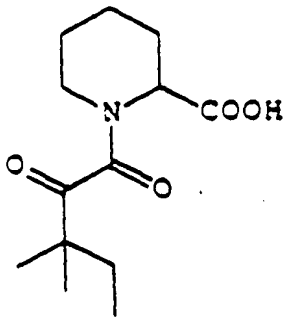

[(2S)- 1 -(1, 2-dioxo-3, 3-dimethylpentyl)-2-hydroxymethyl pyrrolidine; (2S)- 1 -(1, 2-dioxo-3, 3-dimethylpentyl)-2-pyrrolidinetetrazole; (2S)- 1 -(1, 2-dioxo-3, 3-dimethylpentyl)-2-pyrrolidinecarbonitrile; (2S)- 1- (1, 2-dioxo-3, 3-dimethylpentyl)-2-aminocarbonyl piperidine; and compounds 1-25, 27, 28, 31-33, and 35-136 of Tables I, II, and III].

12. – 22. (Cancelled)

23. (Original) The method of claim 1, wherein the compound is non-immunosuppressive.

24. (Original) The method of claim 1, wherein the nerve-related vision disorder is retinal ischemia.

25. (Original) The method of claim 24, wherein the retinal ischemia is selected from the group consisting of degeneration of retinal ganglion cells, degeneration of optic nerve axons, degeneration of myelin sheaths, ischemic optic neuropathy, and retinal vascular blockage.

26. (Original) The method of claim l, wherein the nerve-related vision disorder is optic nerve transection.

27. (Original) The method of claim 26, wherein the optic nerve transection is selected from the group consisting of ganglion cell death after optic nerve transection and myelin degeneration after optic nerve transection.

28. (Original) The method of claim 1, wherein the nerve-related vision disorder is diabetes.

29. (Original) The method of claim 28, wherein the diabetes is selected from the group consisting of diabetes from degeneration and diabetic retinopathy.

30. (Original) The method of claim 1, wherein the nerve-related vision disorder is macular degeneration..

31. (Original) The method of claim 1, wherein the nerve-related vision disorder is glaucoma related degeneration.

32. (Original) The method of claim 1, wherein the nerve-related vision disorder is cataract related degeneration.

33. (Original) The method of claim 1, wherein the nerve-related vision disorder is a detached retina.

34. (Original) The method of claim 1, wherein the nerve-related vision disorder is inflammation related degeneration.

35. (Original) The method of claim 1, wherein the nerve-related vision disorder is photoreceptor degeneration.

36. (Original) The method of claim 1, wherein the nerve-related vision disorder is optic neuritis.

37. (Original) The method of claim 1, wherein the nerve-related vision disorder is dry eye degeneration.

38. (Original) The method of claim 1, wherein the mammal is human.